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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,187	09/21/2005	Javier Sanchez	W1878.0222	5315

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EXAMINER

KAO, WEI PO ERIC

ART UNIT	PAPER NUMBER
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2416

MAIL DATE	DELIVERY MODE
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03/31/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,187	Applicant(s) SANCHEZ, JAVIER	
	Examiner WEI-PO KAO	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6-9,12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6-9,12 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendments

1. The examiner has acknowledged the amendments made to the drawing. The objections made to the drawing have been withdrawn.

2. The examiner has acknowledged the amendments made to the claims. The objections made to the drawing have been withdrawn.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 4, 6, 7, 8, 9, 12 and 14 have been considered but are moot in view of the new ground(s) of rejection.

RCE

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

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has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/18/2009 has been entered.

Claim Rejection - 35 USC § 103

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject

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matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4, 6, 8, 9, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the background of Sanchez, U.S. Publication No 20060182147 (admitted prior art) in view of Leprieur et al, U.S. Publication No 20030003951 (Leprieur) and Anderson, U.S. Patent No. 7046996 (Anderson).

Regarding Claim 1, the admitted prior art teaches that **a method for time-synchronization of at least two radio access modules of a multimode communication mobile terminal which is configured to function according to at least two distinct radio access techniques in a cellular telecommunication network in which one of the radio access modules is active in a current cell and the other radio access module is in a passive state in the current cell** (see [0003] [0005] [0009] e.g. the type 2 mobile terminal has both GSM mode and UMTS mode electronic cards; when one electronic card (GSM or UMTS) is activated, the other is inactive) **the method comprising steps of: (a) measuring for each of cells adjacent to the current cell** (see [0009] Lines 8-12). However, the admitted prior art does not teach that **the method comprising steps of: (a) measuring for each of cells adjacent to the current cell a time offset T_offset between start of a specific frame of the first radio technique and start of a specific frame of the second radio access technique; (b) using the time offset T_offset measured in step (a) for synchronizing the passive radio access module with the active radio access**

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module; and (d) the active radio access module activating the passive radio access module immediately before step (a). Leprieur from the same field of endeavor teaches that **the method comprising steps of: (a) measuring for each of cells adjacent to the current cell a time offset T_{offset}** (see [0005-0007] [0009] [0015] [0040] e.g. for a mobile terminal to make a good transition when moving from a cell with a first mode (GSM or UMTS) to a different cell with a second mode (GSM or UMTS), a mobile terminal connected by a radio link to a base station using a first mode must therefore be in a position to know the exact time for at least one other mode or each of cells with a second mode adjacent to the current cell) **between start of a specific frame of the first radio technique and start of a specific frame of the second radio access technique** (see [0019] [0021] [0033] [000038-0039]); **(b) using the time offset T_{offset} measured in step (a) for synchronizing the passive radio access module with the active radio access module** (see Abstract, [0016] [0032] [0045]); **and (d) the active radio access module activating the passive radio access module** (see [0024] [0047]) **immediately before step (a)** (see [0013] [0020] [0022] [0023-0024] [0033-0035] [0038-0039] [0047] i.e. in order for the multimode terminal to calculate/measure the time shift or time offset, each part, such as a clock, respectively operating in compliance with a mode is used to measure a time value associated with start of the frame of the mode; in addition, paragraph [0047] lines 7-11 states: “when a measurement on a station associated with the second mode is necessary ... the party (part) associated with the first mode can activate the (part associated with) second mode via the microcontroller ...”; so, when a the part of the first mode finishes measuring, the part of first mode activates the part of second mode to start taking measurement associated with the second mode; such step of activation takes place immediately before calculating/measuring the time

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shift or time offset). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the parts with respect to the GSM and UMTS modes from Leprieuri's multimode terminal to the GSM and UMTS electronic cards of the type 2 mobile terminal in order to synchronize the two radio access technique using the time offset between the two. The motivation would have been that it is desired to guarantee smooth switching between two different radio access technologies e.g. [0045] line 5-10.

Still regarding Claim 1, the admitted prior art and Leprieur teach all the limitation in claim 1 except that **the method, comprising a step of (c) updating a value of the offset T_offset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module.** Even so, the admitted prior art and Leprieur allow one ordinarily skilled in the art to realize that **the method, comprising a step of (c) updating a value of the offset T_offset on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module** (see Leprieur, [0005-0007] [0009] [0015] [0040] i.e. the UMTS/GSM switching technique and T_offset calculation must be able to perform repeatedly since it is an cellular communication environment and the states of current cell and its neighboring cells are constantly changing; consider the following scenario: when a dual-mode terminal is in a UMTS cell, it first measures the T_offset; when it moves to a neighboring GSM cell, it has to secondly active the passive module; when it is in the GSM cell, it then again thirdly measures T_offset; the steps then repeats; therefore, when the dual-mode terminal repeats second and third steps, the T_offset gets updated again and again). Therefore, Anderson from the same field of endeavor is brought in to combine with the admitted prior art

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and Leprieur to support the realization that **the method, comprising a step of (c) updating a value of the offset T_{offset} on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module** (see Abstract, Column 1 Lines 8-13, 60-67, Column 2 Lines 1-3, Column 5 Lines 47-55, Column 6 Lines 4-15, Column 7 Lines 65-67, Column 9 Lines 50-67, Column 10 Lines 1-8 e.g. column 6 lines 4-15, column 9 lines 50-67, column 10 lines 1-8; as illustrated, the rule information/code-book is updated when to facilitate the change from a GSM call to a UMTS call, and when the code-book is updated, mobile stations are commanded to monitor UMTS carriers for neighbor measurement reporting). At the time of the invention, it would have been obvious to a person ordinary skill in the art to enable the mobile stations to encode and/or decode messages broadcasted by the base station on a broadcast channel base on dynamically updated rule information. The motivation would have been that there a need to broadcast information about several modes, thus utilizing significant amounts of the bandwidth allocation (see column 2 lines 1-3).

Regarding Claims 4 and 12, the admitted prior art further teaches that **the method, wherein the mobile terminal is a UMTS/GSM dual-mode terminal and wherein the predefined duration T_{offset} is a time difference observed on a GSM cell defined in standard 3GPP TS 25.215** (see [0020]).

Regarding Claim 6, it is a device claim corresponding to the method claim 1, and therefore rejected under the same reason set forth in the same section of claim 1 in this paragraph.

Regarding Claim 7, the admitted prior art teaches that **a multimode mobile terminal comprising: a radio access module dedicated to each operating mode** (see [0003] [0009] e.g. the GSM and UMTS electronic cards). However, the admitted prior art does not teach that **a clock generator associated with each radio access module; and a unit for calculating a time offset T_{offset} between start of a specific frame of a first operating mode and start of a specific frame of a second operating mode in a cellular telecommunication network, wherein the mobile terminal comprises a central interface which is configured to generate a clock signal of a passive radio access module shifted with respect to a clock signal of an active radio access module concerning the duration T_{offset} , and wherein the active radio module is adapted to activate the passive radio access via the central interface, and the activation of the passive radio access module is make immediately before calculating the time offset T_{offset} .** Leprieur et al from the same field of endeavor teach that **a clock generator associated with each radio access module** (see [0013] [0022] [0034] e.g. the clocks U1 and U2); **and a unit for calculating a time offset T_{offset} between start of a specific frame of a first operating mode and start of a specific frame of a second operating mode in a cellular telecommunication network** (see [0015] [0018-0023] [0025] line 1-10 e.g. the counter), **wherein the mobile terminal comprises a central interface which is configured to generate a clock signal of a passive radio access module shifted with respect to a clock signal of an active radio access module concerning the duration T_{offset}** (see [0016] [0025] line 10-12 e.g. the microcontroller), **and wherein the active radio module is adapted to activate the passive radio access via the central interface, and the activation of the passive**

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radio access module is make immediately before calculating the time offset T_{offset} . (see [0013] [0020] [0022] [0023-0024] [0033-0035] [0038-0039] [0047] i.e. in order for the multimode terminal to calculate/measure the time shift or time offset, each part, such as a clock, respectively operating in compliance with a mode is used to measure a time value associated with start of the fame of the mode; in addition, paragraph [0047] lines 7-11 states: “when a measurement on a station associated with the second mode is necessary ... the party (part) associated with the first mode can activate the (part associate with) second mode via the microcontroller ...”; so, when a the part of the first mode finishes measuring, the part of first mode activates the part of second mode to start taking measurement associated with the second mode; such step of activation takes place immediately before calculating/measuring the time shift or time offset). At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the parts with respect to the GSM and UMTS modes from Leprieuri’s multimode terminal to the GSM and UMTS electronic cards of the type 2 mobile terminal in order to synchronize the two radio access technique using the time offset between the two. The motivation would have been that it is desired to guarantee smooth switching between two different radio access technologies e.g. [0045] line 5-10.

Still regarding Claim 7, the admitted prior art and Leprieur teach all the limitation in claim 7 except that **the multimode mobile terminal, wherein the unit update a value of the offset T_{offset} on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module.** Even so, the admitted prior art and Leprieur allow one ordinarily skilled in the art to realize that **the multimode mobile terminal, wherein**

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the unit update a value of the offset T_{offset} on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module (see Leprieur, [0005-0007] [0009] [0015] [0040] i.e. the UMTS/GSM switching technique and T_{offset} calculation must be able to perform repeatedly since it is an cellular communication environment and the states of current cell and its neighboring cells are constantly changing; consider the following scenario: when a dual-mode terminal is in a UMTS cell, it first measures the T_{offset} ; when it moves to a neighboring GSM cell, it has to secondly active the passive module; when it is in the GSM cell, it then again thirdly measures T_{offset} ; the steps then repeats; therefore, when the dual-mode terminal repeats second and third steps, the T_{offset} gets updated again and again). Therefore, Anderson from the same field of endeavor is brought in to combine with the admitted prior art and Leprieur to support the realization that **the multimode mobile terminal, wherein the unit update a value of the offset T_{offset} on each change of the current cell and for each neighboring cell associated with the radio access technique of the passive module** (see Abstract, Column 1 Lines 8-13, 60-67, Column 2 Lines 1-3, Column 5 Lines 47-55, Column 6 Lines 4-15, Column 7 Lines 65-67, Column 9 Lines 50-67, Column 10 Lines 1-8 e.g. column 6 lines 4-15, column 9 lines 50-67, column 10 lines 1-8; as illustrated, the rule information/code-book is updated when to facilitate the change from a GSM call to a UMTS call, and when the code-book is updated, mobile stations are commanded to monitor UMTS carriers for neighbor measurement reporting). At the time of the invention, it would have been obvious to a person ordinary skill in the art to enable the mobile stations to encode and/or decode messages broadcasted by the base station on a broadcast channel base on dynamically updated rule information. The motivation would have been that there a need to broadcast information

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about several modes, thus utilizing significant amounts of the bandwidth allocation (see column 2 lines 1-3).

Regarding Claim 8, Leprieur further teaches that **the mobile terminal, wherein the central interface comprises a module for generating an order for activating the passive radio access module** (see [0047] Lines 7-12). At the time of the invention, it would have been obvious to a person ordinary skill in the art to let the central interface comprise a module for generating an order for activating the passive radio access module. The rationale would have been that it is desired simplify the structure of the multimode terminal.

Regarding Claims 9 and 14, the admitted prior art further teaches that **the mobile terminal, wherein the mobile terminal supports a UMTS network and a GSM network** (see [0020]).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Referring to the PTO Form 892, references are cited to show similar method and system of updating the time offset value.

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9. Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WEI-PO KAO whose telephone number is (571)270-3128. The examiner can normally be reached on Monday through Friday, 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/

Supervisory Patent Examiner, Art Unit

2416

/Wei-po Kao/

Examiner, Art Unit 2416